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Who Wants To Be A Millionaire®: The Classroom Edition

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Abstract

This paper introduces a version of the internationally popular television game show *Who Wants To Be A Millionaire®* that has been created for use in the classroom using Microsoft PowerPoint®. A suggested framework for its classroom use is presented, instructions on operating and editing the classroom version of *Who Wants To Be A Millionaire®* are provided, and sample feedback from students who have played the classroom version of *Who Wants To Be A Millionaire®* is offered.

Introduction

A great deal of research has been done on the dynamics of attention spans during lectures. Hartley and Davies (1978) reviewed this research and concluded that the typical student's attention increases during the first ten minutes of lecture and then diminishes after that point. McKeachie (1999) suggests that changing the environment during a lecture can recapture the attention of students.

One commonly used method for changing the classroom environment is the short break. However, it is often impractical to temporarily suspend a class meeting for a variety of reasons. If the class meeting is relatively short, there may not be enough time remaining in the class meeting to recover from the disruption in momentum that results from a short break. Students often (particularly in lower-level undergraduate courses) fail to return to class after break. Finally, the repeated class time lost to breaks

accumulates over an academic term and may represent a substantial proportion of available class contact time.

A well-crafted active learning exercise may provide a beneficial break without producing the detrimental effects identified in the previous paragraph (Brown and Atkins, 1988). Furthermore, an active learning exercise composed of current subject matter can minimize or completely prevent the loss of momentum (Sutherland and Bonwell, 1996). Such an exercise can keep students engaged, thereby discouraging them from wandering away during the break in lecture. Such exercises can also be extremely productive when used to reveal subtleties, emphasize key points, and provide transitions to new topics (McKeachie, 1999). Finally, an active learning exercise can actually recaptivate students, encourage them to think about a concept in an engaged manner, and promote greater retention of course material (Bonwell and Eison, 1991).

I have designed the classroom version of *Who Wants To Be A Millionaire®* to provide such an active learning exercise. In a live classroom test it has been demonstrated to i) maintain course momentum, ii) keep students engaged, and iii) provide exposure to and reinforcement of course topics while providing a short respite from the lecture.

A Suggested Framework For Classroom Use

I am currently using the classroom version of *Who Wants To Be A Millionaire®* in QA 233, a three credit hour introductory statistics course that all undergraduate business students are required to take during their sophomore year at Louisiana Tech University. Each section meets twice weekly for 110 minutes per meeting. We play the classroom version of *Who Wants To Be A Millionaire®* during each class meeting in which no exam is to be administered. The game proceeds as follows:

- 1) Roughly fifty minutes into the class meeting I identify the randomly selected student contestants. Because as many as eighty students may be enrolled in each section of the course, I require that students play in teams of four to ensure that every student in the class has an

opportunity to participate. The questions used in the classroom version of *Who Wants To Be A Millionaire*® may also appear on an upcoming examination, so in fairness to the team of student contestants, all other students in the class are instructed to put away their note-taking materials for the duration of the game. This also enhances the perception that the class is taking a break.

- 2) I seat the team of student contestants in front of the class facing the screen (and with their backs to the audience so that they can not receive any unsolicited assistance).
- 3) I present the team of student contestants with a question and four potential responses. The question and the four potential responses appear on an image similar to that which is used on the hit television show *Who Wants To Be A Millionaire*®.
- 4) The team of student contestants must collaborate, reach a consensus, and give a single response to the question. The team of selected student contestants may respond in one of three ways:
 - a) Refuse to answer the question, quit the game, and retain all credit earned to that point. Note that the team of student contestants starts with 2/3 of a quiz credit and receives 1/3 of a quiz credit for each correct answer. Thus a maximum of 2 quiz credits is earned if all four questions are correctly answered;
 - b) Answer the question and continue to play if their answer is correct or forfeit their right to continue playing and lose all credit earned to that point if incorrect. However, once the team of student contestants has earned one quiz credit (i.e., answered the first question correctly) they can not lose that credit; or
 - c) Use a lifeline (Ask A Friend/Classmate, Poll The Class, or 50/50). Note that each team of student contestants is only allowed to use one lifeline.

By participating, students can earn credit for up to two missed or incorrectly answered quizzes. Since I

generally administer approximately twelve unannounced quizzes worth a total of 12% of the final grade over an academic term, students may redeem themselves for a maximum of 2% of their final grade by playing the classroom version of *Who Wants To Be A Millionaire*®. Note that students can only earn credit for missed or incorrectly answered quizzes - that is, a student who has correctly answered eleven of the twelve quizzes correctly can only earn credit for up to one missed or incorrectly answered quiz.

Each student is given at least one chance to play during the academic term. If a student is absent on his or her randomly chosen turn to play, the student may be given another chance to participate at the end of the academic term after all other students have had an opportunity to play if time permits.

Operating The Classroom Version

The classroom version of *Who Wants To Be A Millionaire*® is implemented through a series of five hyperlinked PowerPoint® slides per question. Positioning the cursor on the hyperlinked section of a slide and clicking of the right mouse button will take the user immediately to the corresponding hyperlinked slide. A flow chart of the hyperlinking is given in Figure 1.

Each process symbol (□) in the flow chart represents a PowerPoint® slide. The decision symbols (◇) and flowlines (→) represent decisions to be made by the student team and the corresponding hyperlinks, respectively. The slide organization for an individual question is as follows:

Slide 1: Question & The Four Potential Answers

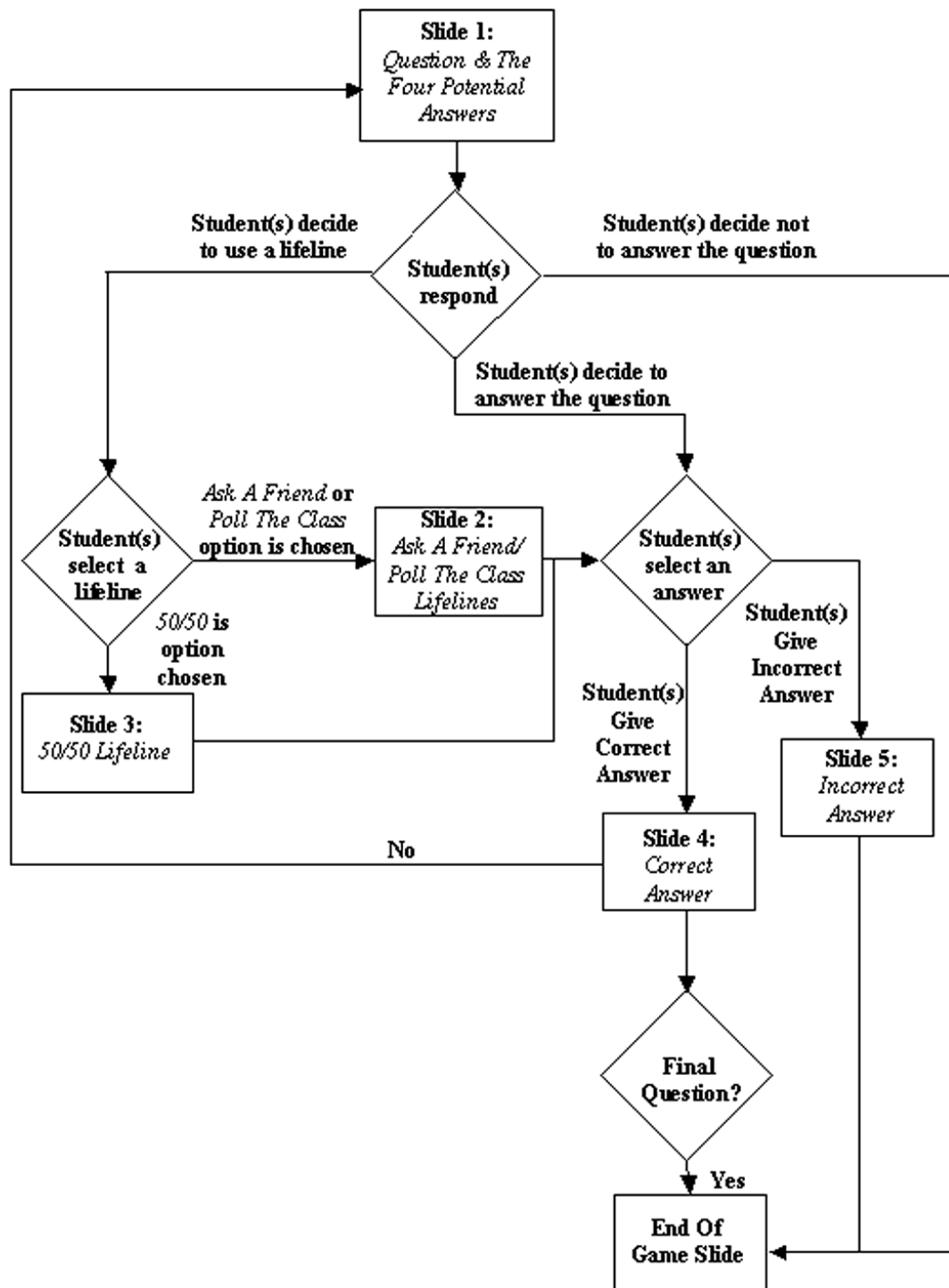
Slide 2: Ask A Friend/Poll The Class Lifelines

Slide 3: 50/50 Lifeline

Slide 4: Correct Answer

Slide 5: Incorrect Answer

Each slide is accompanied by the appropriate *Who Wants To Be A Millionaire*® theme music. This is accomplished by attaching each .wav file to an object on the associated slide. For example, *The Who Wants To Be A Millionaire*® 'theme song'



automatically plays when the first and last overall slides in the game appear. When Slide 1: Question & The Four Potential Answers appears for each question, clicking the left mouse button prompts the

‘new question’ music and the ‘waiting for an answer’ music. The appearance of either Slide 2: Ask A Friend/Poll The Class Lifelines or Slide 3: 50/50 Lifeline automatically prompts the ‘lifeline’ music to

play. Finally, the 'correct answer' music plays at the onset of Slide 4: Correct Answer and the 'incorrect answer' music plays when Slide 5: Incorrect Answer appears. Each of these .wav files was downloaded from WavCentral.com.

The team of student contestants has five options when first provided with a new question and the four potential answers. Thus, Slide 1: Question & The Four Potential Answers contains five hyperlinks. The text box containing the correct answer is hyperlinked to Slide 4: Correct Answer. Similarly, each text box containing an incorrect answer is hyperlinked to Slide 5: Incorrect Answer. The Telephone and Raised Hand icons in the upper right corner of this slide are hyperlinked to Slide 2: Ask A Friend/Poll The Class Lifelines, while the 50/50 icon in the top right corner of this slide is hyperlinked to Slide 3: 50/50 Lifeline.

Because the student team has only two options once they have chosen to use a lifeline on a particular question, Slide 2: Ask A Friend/Poll The Class Lifelines contains only two hyperlinks. The text box containing the correct answer is hyperlinked to Slide 4: Correct Answer, while each text box containing an incorrect answer is hyperlinked to Slide 5: Incorrect Answer. Because I only allow the student teams to use a single lifeline, this slide contains no hyperlinks to the lifeline slides (Slide 2: Ask A Friend/Poll The Class Lifelines and Slide 3: 50/50 Lifeline). The hyperlinks on Slide 3: 50/50 Lifeline are exactly the same as those on Slide 2: Ask A Friend/Poll The Class Lifelines.

Finally, for the first three questions, the bottom third of Slide 4: Correct Answer (colored in maroon) is hyperlinked to the next question to be asked. This allows the game to proceed if the student team answers the current question correctly. For the fourth (and final question) the bottom third of Slide 4: Correct Answer (colored in maroon) is hyperlinked to the final slide in the game. On this slide the student team is thanked for their participation. For obvious reasons the bottom third of Slide 5: Incorrect Answer (colored in maroon) for each of the four questions is hyperlinked to the final slide in the game.

I conscientiously review all answers to each question for the entire class as the game proceeds. This

discussion of the relative merits of the various answers provided is an integral part of the learning process that takes place during the execution of this game.

Editing The Questions and Responses

Editing the classroom version of *Who Wants To Be A Millionaire®* is straightforward as long as the editor follows a single rule - do not copy and paste entire text boxes. The hyperlinks are tied directly to the text boxes, so copying and pasting a text box will result in illogical and unpredictable behavior by the associated hyperlink. To avoid such problems, the questions and answers should be edited within the corresponding text boxes.

To change the text box of the correct answer, e.g. to change the correct answer from A to C, simply use PowerPoint® to edit the hyperlinks. Changes in the answers included/excluded in the 50/50 Lifeline can be made in a similar manner.

Student Feedback And Conclusions

During the fall quarter of the 2000-2001 academic year I taught one section of a second year undergraduate level course in introductory business statistics at Louisiana Tech University. In this class, for which enrollment was fifty-two students, I used the classroom version of *Who Wants To Be A Millionaire®* in the manner outlined above. The reaction by students enrolled the course was extremely positive. A sample of responses given by these students when asked to anonymously provide a short statement regarding their opinion of the classroom version of *Who Wants To Be A Millionaire®* follows:

"The game has definitely helped me. If I get the questions right, I know I understand. If I get them wrong, I know I don't and that's an area I need to work on."

"I enjoy it because it gives me a chance to see what material I need to study more. It also gives my hand a break!"

"It helps me learn about the terms and gives

me a sense of accomplishing something when I get the question correct.”

“I look forward to it each class!”

“It really makes you think and gets you excited about the material!”

“When I do know all of the answers, it makes me feel really smart and confident!”

“I know that I have learned from watching other people participate, as well as through participating myself”

“It makes you feel like you’ve learned something when you get the question right.”

“It’s a great opportunity to earn pts. And it helps you to review the material.”

These comments (and many other similar comments) suggest that the classroom version of *Who Wants To Be A Millionaire*® successfully achieves the pedagogical goals outlined in the introduction of this paper. Furthermore, the design of the classroom version of *Who Wants To Be A Millionaire* allows for easy implementation in any course. Changing and updating a question is simple and straightforward. The entire software has been created using version 6.0 of MicroSoft PowerPoint®, so it can be used in any windows environment. Finally, overhead slides can be utilized (with loss of the audio portion and some loss of the visual appeal) if computer projection equipment is unavailable.

Obtaining a Copy of Who Wants To Be A Millionaire®: The Classroom Edition

You may download the PowerPoint file WWTBAM.ppt which contains a working copy of *Who Wants To Be A Millionaire*®: The Classroom Edition from <http://ite.informs.org/vol1no3/Cochran/WWTBAM.ppt>. The file is approximately 2.2 megabytes.

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